

## ABSTRACT

A virtual concatenation method for optical channels in WDM networks is described. In transmission, the method comprises the steps of: providing for a plurality of frames, each frame comprising a byte reserved for a concatenation flag; writing the same predefined value in the concatenation byte of  $n$  frames ( $n = 1, 2, 3, \dots$ ); and transmitting the  $n$  frames via  $n$  respective channels ( $\lambda_1, \lambda_2, \dots, \lambda_n$ ). In reception, it comprises the steps of: receiving the first reference frame at one instant; reading the concatenation byte value of said reference frame; receiving the remaining signal frames after a respective determined time; reading the value of the concatenation byte of the remaining signal frames; and identifying and aligning all the signal frames with the same concatenation byte value compensating the reception times. (fig. 3).